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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/786,563	06/26/2001	Thomas Klemm	BMID9816US	3534

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EXAMINER

NGUYEN, KIMNHUNG T

ART UNIT	PAPER NUMBER
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2674

DATE MAILED: 02/06/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/786,563

Applicant(s)

KLEMM, THOMAS

Examiner

Kimnhung Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16-28 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 16-28 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

This Application has been examined. The claims 16-28 are pending. The examination results are as following.

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 16-22 and 24-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US patent 4,412,214 cited by Applicant) in view of Garcia et al. (US patent 3,938, 140 cited by Applicant).

Regarding claims 16 and 24, Tanaka et al. disclose in figure 1a, a system for the display of symbols or a method for operating a liquid crystal display which enables a visual recognition of detective segments comprising a liquid crystal display having a first (1) and second plate (2) (see column 1, lines 12-32, figure 4a, column 4, lines 48-64) which face one another and a liquid crystalline substance (5) located in the space between the first and second plate (see column 1, lines 25-28), the first plate being transparent (see substrates of transparent, see column 1, lines 14-16) and having essentially transparent conductive segments (3, see transparent segment electrodes, see column 1, lines 16-17) in a display area to present symbols and the second plate being conductive at least in the regions that are opposite to the segments of the first plate (see transparent common

electrode disposed on the inner surface of the lower substrate, see column 1, lines 20-22), and the first plate has at least one conductive inverse segment (see figure 4a, region E, electrode 70) which fills out the area surrounding at least one of the segments used to represent symbols (see figure 4a), and a displaying symbol with the liquid crystal display (see shape of segments, see figure 1a).

However, Tanaka et al. do not disclose an actuation device for the selective activation of the segments and of the at least one inverse segment which for a time interval, allows simultaneous activation of the segments and of the at least one inverse segment so that it is possible to recognize segments that may have failed by their inverse appearance relative to the at least one inverse segment. Garcia et al. discloses a display device having a segmented structure, the control part failure of the segments during normal operation by the absence of break down a homogenous display of the segments, therefore it is possible relative to the at least one inverse segment (see abstract). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the control part failure of the segments during normal operation by the absence of break down a homogenous display of the segments as taught by Garcia et al. into the system of Tanaka et al. because this would be possible to detect any abnormal operation of the display device unless it simultaneously affected the homologous excitation paths and such breakdown is may be reduced still more if necessary by splitting up the device still more (see column 3, lines 19-24).

Regarding claim 17, Tanaka et al. disclose wherein an electrical potential is applied separately to the segments and to the at least one inverse segment (see figure 4a).

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Regarding claims 18-23, Tanaka et al. disclose wherein the shape and size of the regions on the second plate essentially correspond to the segments of the first plate and the regions are arranged such that they are opposite corresponding segments (see figures 8a, 8b), the second plate and its conductive regions are transparent (see column 1, lines 14-30), and wherein the second plate is a reflective (see column 7, lines 52-56), and the two polarizers between the liquid crystalline substance is disposed (see column 1, lines 28-32). Regarding claims 25-28, Tanaka et al. disclose wherein the symbols are displayed in step b. However, Tanaka et al. do not teach wherein the display area appears dark when carrying out the step a, and defective signals stand out bright or wherein the display area appears bright when carrying out step a, and defective signals stand out dark. Garcia et al. disclose the display area appears dark when carrying out the step a, and defective signals stand out bright or wherein the display area appears bright when carrying out step a, and defective signals stand out dark (see two parts of a segment and its stands out from a dark or luminous, see column 4, lines 14-30). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide two parts of segment and its stands out from dark or luminous as taught by Garcia et al. into the system of Tanaka et al. because this would for providing the entire display to be invalidated and this correspond to the effect produced on any untrained observer (see column 4, lines 27-30).

3. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tanaka et al. (US patent 4,412,214) and Garcia et al. (US patent 3,938,140) as applied to claim 1 above, and further in view of Bailey (US patent 5,392,546).

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Tanaka et al. and Garcia et al. do not disclose a switch which can initiate a joint activation of the segments and of the at least one inverse segment. Bailey disclose in a seven-segment digital or alphabetic display wherein any of the segments may be switched to a visible state or invisible state (see column 1, lines 60-63). It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the segments may be switched to a visible state or invisible state as taught by Bailey in to the system of Tanaka et al. and Garcia et al. because this would for converting from one digit or letter to another by simply applying a force to them manually and wherein the segments remain in a stable state until a force is applied again (see Bailey, column 1, lines 63-66).

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimnhung Nguyen whose telephone number (703) 308-0425.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on (703) 305-4709.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D. C. 20231

Or faxed to:

(703) 872-9314 (for Technology Center 2600 only).

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive,
Arlington, VA Sixth Floor (Receptionist).

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Kimnhung Nguyen
February 4, 2004



RICHARD HJERPE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600